

# **SAFE INJECTION PRACTISES**

## **What does Universal Safety Precautions mean?**

They are control guidelines designed to protect workers from exposure to diseases spread by blood & other bodily fluids.

## **What does a single dose vial mean?**

A single dose container designed for use with a single patient as an injection or infusion.

## **What does a multi-dose vial mean?**

A container that holds more than 1 dose of a medication intended to be used for 1 patient only.

## **What are the 5 moments of hand hygiene (i.e when do you perform it)?**

- 1- Before touching a patient.
- 2- Before performing a clean/aseptic procedure.
- 3- After exposure to body fluid.
- 4- After touching a patient.
- 5- After touching a patients' surroundings like bed, medications etc.

## **Safe injection, according to WHO, is defined as one which doesn't:**

- Harm the recipient.
- Expose the provider to any avoidable risk.
- Waste that is dangerous for the community.

### **Most injections are given for:**

- 90% in curative care.
- 5% in immunization.
- Rest in blood transfusion, IV drugs, & fluids.

### **4 main dangers associated with injections:**

- Reuse of injection equipment.
- Needle stick injury.
- Overuse of injections.
- Unsafe way of disposing those injections.

### **In 2000, WHO Injection Safety Programme & SIGN estimated that unsafe injection was responsible for?**

- 5% of new HIV cases.
- 40% of hepatitis C cases.
- 32% of Hepatitis B cases.

### **Which nerve can be damaged if incorrect injection?**

**Sciatic** nerve in **gluteal** injections.

### **VIP information about sharps bin:**

- Do not fill sharp container more than 2/3 full.
- Discard all used needles & syringes IMMEDIATELY!
- Replace sharps containers after 1 month of usage.

### **Common injection routes:**

- Intradermal
- Subcutaneous
- Intravenous
- Intramuscular

### **INTRADERMAL:**

**Which layer of the skin?**

Dermis, just below the epidermis.

**When is this route used?**

- For sensitivity tests like tuberculin & allergy tests.
- Local anesthesia.

**Angle?**

10-15°.

**Which injection route has the longest absorption time?**

Intradermal.

### **SUBCUTANEOUS:**

**Where is this?**

SQ means under the skin. Inject medication into the tissue layer between the skin & muscle.

**When is this route used for?**

Most common medication which uses subcutaneous as route of administration is insulin.

**Angle?**

45°.

### **INTRAVENOUS:**

**Where?**

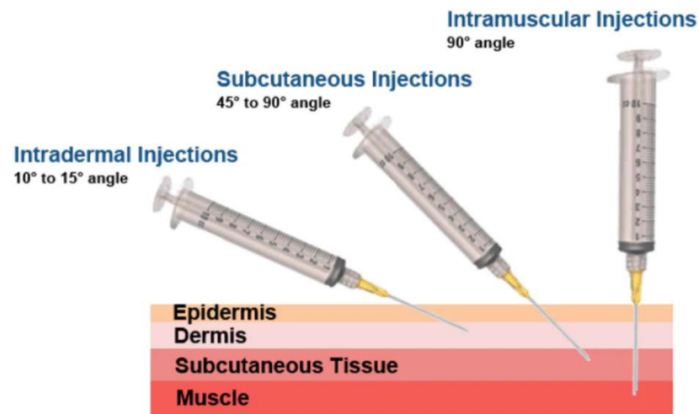
Within the vein.

This is the **fastest** way to deliver fluids & medications throughout the body. It goes directly into the bloodstream.

### **INTRAMUSCULAR:**

This goes deep into the muscle for quick absorption.

**Used for:** Vaccines and EpiPen.



**We will focus on intramuscular injections:**

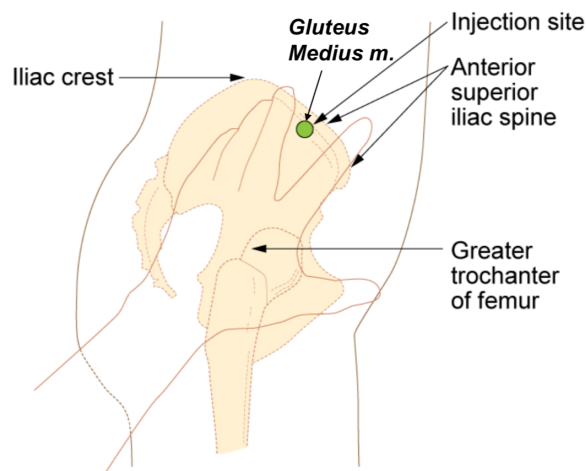
**Where do we commonly inject intramuscularly?**

- Deltoid muscle.
- Ventrogluteal (patient on the side).
- Dorsogluteal (patient sleeping on their stomach).
- Vastus lateralis.

**Ventrogluteal:**

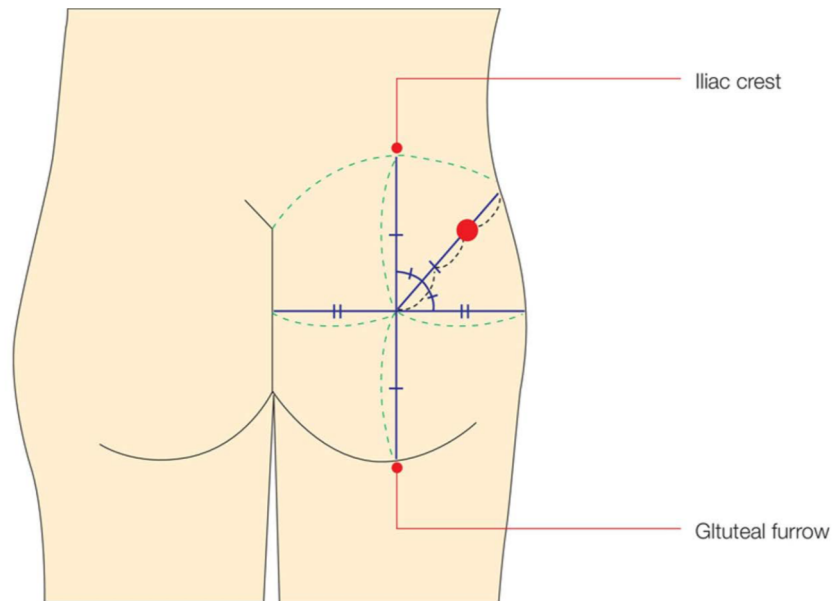
<https://www.youtube.com/watch?v=wKCPiSnYqwA>

<https://www.youtube.com/watch?v=J1liVuMSy1M>



**Dorsogluteal:**

<https://www.youtube.com/watch?v=AxKEJQg6lB8>



### **Vastus Lateralis:**

<https://www.youtube.com/watch?v=KEvYLM71HpE>

<https://www.youtube.com/shorts/OonC7flrHqs>

<https://www.youtube.com/watch?v=XFog6uSwbuw>

### **Deltoid:**

<https://www.youtube.com/shorts/ZRWKMldPOs0>

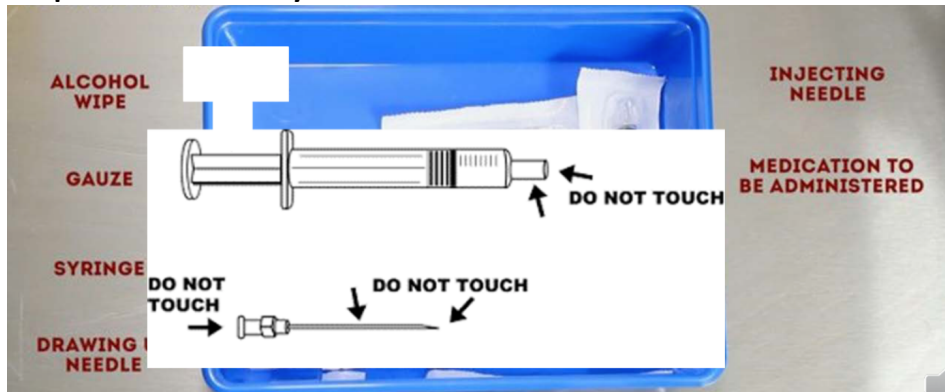
<https://www.youtube.com/shorts/O5NNwJhIQe0>

**What are some of the complications of IM injection to the gluteal region?**

Nerve injury especially to the sciatic nerve.

## Introduction & preparation before injection:

- Check allergy status.
- Check that you have all your equipment before going to the patient & say them out loud.



Locate the area & mention the anatomy while doing so.

Wear gloves & do WHO hand washing.

Clean the skin of patient with alcohol.

Warn the patient & tell them to take a deep breathe in while you are injecting.

**MAKE SURE TO ASPIRATE!!!**

Once done with injection **THROW IT RIGHT AWAY.**